

Department of Biomedical Engineering  
KPR Institute of Engineering and Technology



# KPR Institute of Engineering and Technology

Arasur, Coimbatore - 641407

www.kpriet.ac.in T: 0422-2635600

"We are Engineers for Doctors"

Biomedical Engineering is one of the premier Engineering disciplines among technocrats since it merges Healthcare Technology with Electronics and Software technologies including Artificial Intelligence, Machine Learning, Robotics in Medicine, Bioinformatics, Prosthetic Engineering etc. to serve better to the human community with advance and continuously upgrading technologies. In KPRIET, we nourish our students with advance laboratories like Bio-signal processing, Diagnostics and Therapeutic Equipment, Human Anatomy and Physiology, Biomedical Instrumentation to learn by practicing. Hospital training and internship are arranged with leading multispecialty hospitals and biomedical industries to facilitate the students for better career. Research activities are vibrant with publications and patents in the recent trends.

**Dr. D. Ganesh kumar HoD/BME**

## Highlights of this month

### Events

**Seminar on Exploring Forensic futures: Higher Education Opportunities**

**Webinar on Working and Application of Defibrillator and Holter ECG**

**Students' Achievement/ Participation**

**Faculty - Professional Development & Achievements**

Monthly Newsletter: Department of Biomedical Engineering

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## About KPRIET

KPR Institute of Engineering and Technology (KPRIET), founded by Dr. K. P. Ramasamy, is one of the leading institutions of academic excellence by imparting technical, intellectual and professional skills to students. The Institution is ranked 100-150 band by NIRF. The institute, with its diverse and energetic community of students offers a distinguishing blend of some of the premium graduate, undergraduate and research programs, talented faculty, world class amenities and a residential campus set on a sprawling 150 acres of lush green campus.

While students at KPRIET immerse themselves in academics, the institute has a lot in store for them outside the classroom. Student life includes participation in sports, co-curricular activities and cultural. In short, at KPRIET, students will find an academic and social environment where everyone- from faculty members to peer's support shape their future. KPRIET is a home to artistically designed buildings with state of the-art computer and internet facilities, modern workshops, seminar halls, auditoriums and well stocked libraries, sports and games fields in addition to an indoor badminton court and gymnasium.

KPRIET has a faculty strength of 265 with a faculty student ratio of 1:15. Out of the total, 139 faculty members PhDs. and 95 are in the process of completing their PhDs. As an exemplary institution of learning, KPRIET follows an admission policy that strongly favours merit, even as it enables access to education for students from all strata of society through appropriate scholarships. The Institution boasts of a strong alumni network with alumni events held every year serving as a platform for past students to give back to KPRIET and share their experiences with its present fellow students.

## About the Department

The Department of Biomedical Engineering of KPR Institute of Engineering and Technology, Coimbatore was established in the year 2017 with an annual intake of 60 students. The Department has highly qualified faculty members with Ph. D. and M.E. / M. Tech / M.S. under various specialize such as Biomedical Signal and Image Processing, Medical Electronics, Healthcare Data Analytics, Biomaterials, Regenerative medicine and Nanoscience. The total strength of the faculty members in the Department is thirteen. Out of which, 60% of the faculty Members (9 Faculty) have completed their PhD and four faculty members are pursuing their PhD.

The faculty members contribute to academic development by publishing books / journals, products, patent filing and presenting papers in International and National Conferences. The Department of Biomedical Engineering signed MoUs with the reputed industries like Silicon systems, Aravind Eye Care Hospital, GEM Hospitals, Ganga Medical Center and Hospital, Masonic Medical Centre for children and ALERT (NGO) to bridge the gap between theory and field practices.

The Department also provides an opportunity for students in improving practical knowledge in the field of Biomedical Engineering and Software skills like MATLAB, LabVIEW, Wokwi simulation through Centre of Excellence, in addition to Communication and Presentation skills. The students have to undergo Industrial Training and Industrial Visit to facilitate them to take up industrial live projects to understand the industry needs. The Students from Biomedical Engineering as well as faculty members has membership in various Professional Societies like BMESI and IEEE (EMBS) to gain knowledge through various programs conducted by these bodies across the Nation.

## Vision of the Department

To be the **centre of excellence** for **dissemination of knowledge, research and development** in biomedical engineering to serve **society with moral values**.

## Mission of the Department

The **Mission** of the Department is to

- Impart **value-based education** in biomedical engineering using **modern equipment and tools**.
- Build an **integrated team** of biomedical engineers to foster technologies through **research, development and innovation**.
- Provide **healthcare industries** with solutions imbued **through lifelong learning** with **ethics and moral values**

**LIST OF EVENTS / PROGRAMS CONDUCTED DURING JANUARY 2024**

S. No.	Date	Type of Event / Program	Title of the Event
1.	05.01.2024	Seminar	Exploring Forensic futures: Higher Education Opportunities
2.	20.01.2024	Webinar	Working and Application of Defibrillator and Holter ECG

**Industry visits by the Department**

S. No.	Date of Visit	Name of the Industry visited by the faculty during January 2024
1.	04.01.2024	NG Hospital, Coimbatore
2.	04.01.2024	Deepan Hospital, Coimbatore
3.	05.01.2024	Aravind Eye Hospital, Coimbatore
4.	29.01.2024	Royal Care Super Speciality Hospital, Coimbatore

EVENT - 1

Seminar on Exploring Forensic futures: Higher Education Opportunities

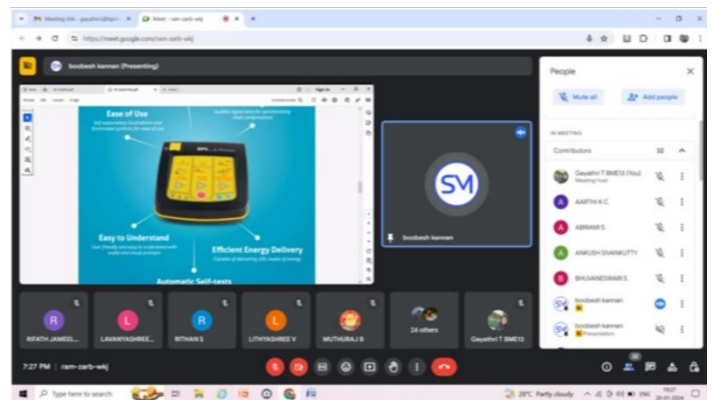
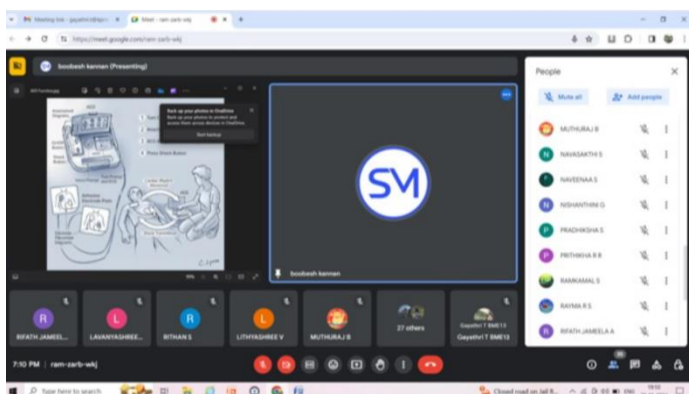
Department of Biomedical Engineering organized a Seminar on 'Exploring Forensic Futures & Higher Education Opportunities' commenced with a warm welcome and introduction by Student alumni coordinator Mr. Sultan (III BME). The alumni Ms. Hari Rithanya then proceeded to address the students on the field of Forensics and its impact in society. Various examples demonstrated by renowned movie directors in popular movies were compared to giving a good connection to the topic and a practical visualization of the role. Various verticals within the field were layered out for the students to gain a depth of knowledge in the field. Ms. Hari Rithanya then elaborated on her personal journal to choosing a career in the field, the career options she had at the time and the reason for her choosing a career in the field she is passionate about. The Universities / colleges that offer the program and the competitive examinations in both for government institutes and private to create a career in this field was elaborated. The informative session ended with a thank you note from the Student Alumni Coordinator Ms. Sureka (IV BME) who shared the team's gratitude for accepting the invitation to share her time and experience with us.



**EVENT - 2****Webinar on Working and Application of Defibrillator and Holter ECG**

Department of Biomedical Engineering organizes a webinar on 'Working and Application of Defibrillator and Holter ECG' for the Biomedical Engineering students on 20.01.2024 at 7 pm. Resource Person for this webinar is Dr. S. Boobeshkannan, Senior Area Service Manager, BPL Medical Technologies Pvt. Ltd. The speaker gave insights about the introduction to defibrillators, purpose and importance in saving lives during cardiac emergencies. Various components of a defibrillator such as pads, control panel, battery, and indicator lights with their functions were explained in this session. Information on safety precautions and troubleshooting of defibrillator was also shared to the participants. Recent model of Automated External Defibrillator was demonstrated with their significance in restoring normal heart rhythm. Then the purpose and significance of Holter monitor in monitoring cardiac activity over an extended period was explained. The components of a Holter monitor system, includes the monitor, electrode leads, and recording devices. The speaker explained the function of each component and demonstrated proper application and placement of electrodes. Finally, the session ended with the interaction session where the student clarified their doubts with the resource person.

The poster is divided into two main vertical sections. The left section is white with blue and green accents. It features the KPR Institute of Engineering and Technology logo at the top, followed by the text 'WEBINAR ON WORKING AND APPLICATION OF DEFIBRILLATOR AND HOLTER ECG'. Below this is a call to action 'JOIN AND LEARN' and the date '20.01.2024 - 07.00 pm ONLINE'. At the bottom, it provides a Google Meet link: <https://meet.google.com/ram-zarb-wkj> and the website 'kpriet.edu.in'. The right section is green with white text. It identifies the speaker as 'Dr BOOBESHKANNAN S, Senior Area Service Manager, BPL Medical Technologies' and includes a circular portrait of the speaker. Logos for G20 and 100 are visible at the bottom right.



### Students' Participation – Technical / Non-Technical/Sports

S. No.	Name of the Student	Year	Detail about the Participation
1.	Ms. Nishanthini G	III	Participated in National level SOCIO - TECH HACKATHON conducted by KPR College of Arts, Science and Research
2.	Ms. Lithyashree V	III	
3.	Ms. Lakshitha S Shankar	III	
4.	75 Students	II	Completed Two-week Winter Internship at various Hospitals and Biomedical Industries successfully.

### Faculty - Professional Development & Achievements

S.No.	Name of the Faculty member	Contribution details
1.	Dr. S. Logesh Kumar, AP (Sl. G)/BM	Honored as Expert Guest for the event SHAASTRA 2024 organized by Indian Institute of Technology Madras.
2.	Dr. N. Rajasingam, AP (Sl. G)/BM	One-week Internship at Prashan Medical Technologies, Coimbatore.
3.	Mr. John Amose, AP (Sr. G)/BM	
4.	Mr. R Krishna Kumar, AP/BM	